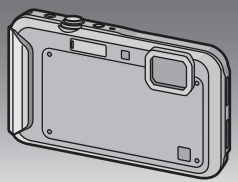
Panasonic

Basic Operating Instructions
Digital Camera

Model No. DMC-FT20

LUMIX



Before use, please read these instructions completely.

More detailed instructions on the operation of this camera are contained in "Operating Instructions for advanced features (PDF format)" in the supplied CD-ROM. Install it on your PC to read it.

Web Site: http://www.panasonic-europe.com

Model number suffix "EB" denotes UK model.

VQT4A91
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EB

Dear Customer,

We would like to take this opportunity to thank you for purchasing this Panasonic Digital Camera. Please read these Operating Instructions carefully and keep them handy for future reference. Please note that the actual controls and components, menu items, etc. of your Digital Camera may look somewhat different from those shown in the illustrations in these Operating Instructions.

Carefully observe copyright laws.

- Recording of pre-recorded tapes or discs or other published or broadcast material for purposes other than your own private use may infringe copyright laws. Even for the purpose of private use, recording of certain material may be restricted.

Information for Your Safety

WARNING:

To reduce the risk of fire, electric shock or product damage,

- **Do not let water or other liquids drip or splash inside the unit.**
- **Do not expose accessories (battery pack, battery charger, SD memory card and etc.) to rain, moisture, dripping or splashing.**
- **Use only the recommended accessories.**
- **Do not remove covers.**
- **Do not repair this unit by yourself. Refer servicing to qualified service personnel.**

The socket outlet shall be installed near the equipment and shall be easily accessible.

■ Product identification marking

Product	Location
Digital Camera	Bottom
Battery Charger	Bottom

Caution for AC mains lead

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug. Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362. Check for the ASTA mark ⓐ or the BSI mark ♆ on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local dealer.

CAUTION!
IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as stated below. If in any doubt please consult a qualified electrician.

■ IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:
Blue: Neutral, Brown: Live.
As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.
The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL ⏚ OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF-KEEP DRY.

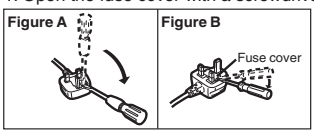
■ Before use

Remove the connector cover.

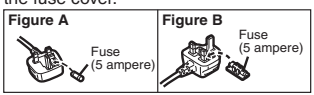
■ How to replace the fuse

The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.
Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.



2. Replace the fuse and close or attach the fuse cover.



■ About the battery pack

CAUTION
- Danger of explosion if battery is incorrectly replaced. Replace only with the type recommended by the manufacturer.
- When disposing the batteries, please contact your local authorities or dealer and ask for the correct method of disposal.

- Do not heat or expose to flame.
- Do not leave the battery(ies) in a car exposed to direct sunlight for a long period of time with doors and windows closed.

Warning
Risk of fire, explosion and burns. Do not disassemble, heat above 60 °C or incinerate.

■ About the battery charger

CAUTION!
To reduce the risk of fire, electric shock or product damage,
- **Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure this unit is well ventilated.**

- The battery charger is in the standby condition when the AC power supply cord is connected. The primary circuit is always “live” as long as the power cord is connected to an electrical outlet.

■ Cautions for Use

- Do not use any other AV cables except the supplied one.
- Do not use any other USB connection cables except the supplied one.

Keep this unit as far away as possible from electromagnetic equipment (such as microwave ovens, TVs, video games etc.).

- If you use this unit on top of or near a TV, the pictures and/or sound on this unit may be disrupted by electromagnetic wave radiation.
- Do not use this unit near cell phones because doing so may result in noise adversely affecting the pictures and/or sound.
- Recorded data may be damaged, or pictures may be distorted, by strong magnetic fields created by speakers or large motors.
- Electromagnetic wave radiation generated by microprocessors may adversely affect this unit, disturbing the pictures and/or sound.
- If this unit is adversely affected by electromagnetic equipment and stops functioning properly, turn this unit off and remove the battery. Then reinsert the battery and turn this unit on.

Do not use this unit near radio transmitters or high-voltage lines.

- If you record near radio transmitters or high-voltage lines, the recorded pictures and/or sound may be adversely affected.

Information for Users on Collection and Disposal of Old Equipment and used Batteries

These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries should not be mixed with general household waste.
For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points, in accordance with your national legislation and the Directives 2002/96/EC and 2006/66/EC.
By disposing of these products and batteries correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.
For more information about collection and recycling of old products and batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.
Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

For business users in the European Union
If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

[Information on Disposal in other Countries outside the European Union]
These symbols are only valid in the European Union. If you wish to discard these items, please contact your local authorities or dealer and ask for the correct method of disposal.

Note for the battery symbol (bottom two symbol examples):
This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.

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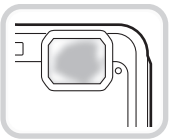
Before Use

Please be sure to read "(Important) About the Waterproof/Dustproof and Anti-shock Performance of the Camera" (P11) before using this unit underwater to prevent the unit from being mishandled, which may cause water to seep in.

- **Do not apply strong shock or vibration by dropping or knocking the camera. Also, do not apply strong pressure to the camera.**
  - Waterproof performance may be impaired.
  - **Lens or LCD monitor may be damaged.**
  - It may cause malfunction in the performance or the function.

■ When inner side of the lens is fogged (condensation)

It is not a malfunction or failure of the camera. It may be caused by the environment in which the camera is used.



What to do when inner side of the lens is fogged

- Turn off the power and open the side door in a place with constant ambient temperature, away from high temperatures, humidity, sand and dust. The fog will disappear naturally in 10 minutes to 2 hours with the side door open when the temperature of the camera gets close to the ambient temperature.
- Contact Panasonic's Service Centre if the fogging does not disappear.

Conditions in which inner side of the lens may be fogged

Condensation may occur and the inner side of the lens may be fogged when the camera is used in areas that undergo a significant change in temperature or in high humidity, such as the following:

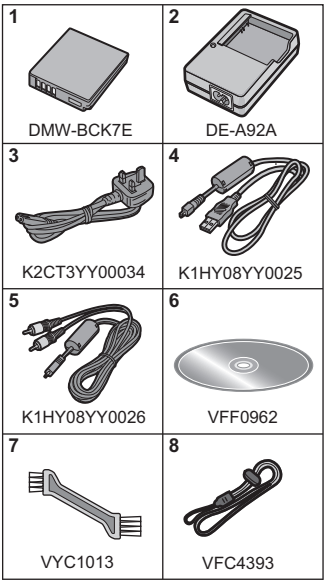
- **When the camera is used underwater suddenly after being on a hot beach etc.**
- **When the camera is moved to a warm area from a cold area, such as at a ski resort or at high altitude**
- **When the side door is opened in a high-humidity environment**

Accessories

Check that all the accessories are supplied before using the camera.
Product numbers correct as of January 2012. These may be subject to change.

1 Battery Pack
(Indicated as **battery pack** or **battery** in the text)
Charge the battery before use.
2 Battery Charger
(Indicated as **battery charger** or **charger** in the text)
3 AC Mains Lead
4 USB Connection Cable
5 AV Cable
6 CD-ROM
- Software
- Operating Instructions for advanced features

Install on your PC before use.
7 Brush
8 Hand Strap



- Supplied accessories are not waterproof (excluding Hand Strap).
- Keep the Brush out of reach of children to prevent swallowing.
- SD Memory Card, SDHC Memory Card and SDXC Memory Card are indicated as **card** in the text.
- **The card is optional.**
  You can record or play back pictures on the built-in memory when you are not using a card.
- Consult the dealer or your nearest Service Centre if you lose the supplied accessories. (You can purchase the accessories separately.)

Sales and Support Information

Customer Communications Centre

- For customers within the UK: 0844 844 3899
- For customers within Ireland: 01 289 8333
- For further support on your product, please visit our website: www.panasonic.co.uk

Direct Sales at Panasonic UK

- Order accessory and consumable items for your product with ease and confidence by phoning our Customer Communications Centre Monday–Thursday 9:00 a.m.–5:30 p.m., Friday 9:30 a.m.–5:30 p.m. (Excluding public holidays)
- Or go on line through our Internet Accessory ordering application at www.pas-europe.com.
- Most major credit and debit cards accepted.
- All enquiries transactions and distribution facilities are provided directly by Panasonic UK.
- It couldn't be simpler!
- Also available through our Internet is direct shopping for a wide range of finished products. Take a browse on our website for further details.

■ Optional Accessories

Battery Pack	DMW-BCK7
Class 10 64 GB SDXC Memory Card	RP-SDU64GE1K
Class 10 32 GB SDHC Memory Card	RP-SDA32GE1K/RP-SDU32GE1K
Class 10 16 GB SDHC Memory Card	RP-SDA16GE1K/RP-SDU16GE1K
Class 10 8 GB SDHC Memory Card	RP-SDA08GE1K/RP-SDU08GE1K
Class 10 4 GB SDHC Memory Card	RP-SDU04GE1K
Class 6 32 GB SDHC Memory Card	RP-SDQ32GE1K
Class 6 16 GB SDHC Memory Card	RP-SDQ16GE1K
Class 6 8 GB SDHC Memory Card	RP-SDQ08GE1K
Class 6 4 GB SDHC Memory Card	RP-SDQ04GE1K
Class 4 16 GB SDHC Memory Card	RP-SDN16GE1A
Class 4 8 GB SDHC Memory Card	RP-SDN08GE1A
Class 4 4 GB SDHC Memory Card	RP-SDN04GE1A
Class 4 2 GB SD Memory Card	RP-SDN02GE1A

Some optional accessories may not be available in some countries.

(Important) About the Waterproof/ Dustproof and Anti-shock Performance of the Camera

Waterproof/Dustproof Performance

This camera's waterproof/dustproof rating complies with the "IPX8" and "IP6X" ratings. Provided the care and maintenance guidelines described in this document are strictly followed, this camera can operate underwater, to a depth not exceeding 5 m (16 feet) for a time not exceeding 60 minutes. (∗1)

Anti-shock Performance

This camera also complies with "MIL-STD 810F Method 516.5-Shock". The camera has cleared a drop test from a height of 1.5 m (5 feet) onto 3 cm (0.1 feet) thick plywood. In most cases this camera should not sustain any damage if dropped from a height not exceeding 1.5 m (5 feet). (∗2)

This does not guarantee no destruction, no malfunction, or waterproofing in all conditions.

∗1 This means that the camera can be used underwater for specified time in specified pressure in accordance with the handling method established by Panasonic.

∗2 "MIL-STD 810F Method 516.5-Shock" is the test method standard of the U.S. Defense Department, which specifies performing drop tests from a height of 122 cm (4 feet), at 26 orientations (8 corners, 12 ridges, 6 faces) using 5 sets of devices, and passing the 26 orientation drops within 5 devices. (If failure occurs during the test, a new set is used to pass the drop orientation test within a total of 5 devices)
Panasonic's test method is based on the above "MIL-STD 810F Method 516.5-Shock". However, the drop height was changed from 122 cm (4 feet) to 150 cm (5 feet) dropping onto 3 cm (0.1 feet) thick plyboard. This drop test was passed.
(Disregarding appearance change such as loss of paint or distortion of the part where drop impact is applied.)

■ Handling of the camera

- Waterproofing is not guaranteed if the unit is subject to an impact as a result of being hit or dropped etc. If an impact to the camera occurs, it should be inspected (subject to a fee) by a Panasonic's Service Centre to verify that the waterproofing is still effective.
- When the camera is splashed with detergent, soap, hot spring, bath additive, sun oil, sun screen, chemical, etc., wipe it off immediately.
- Waterproof function of the camera is for sea water and fresh water only.
- Any malfunction caused by customer misuse, or mishandling will not be covered by the warranty.
- The inside of this unit is not waterproof. Water leakage will cause malfunction.
- Supplied accessories are not waterproof (excluding Hand Strap).
- Card and battery are not waterproof. Do not handle with a wet hand. Also, do not insert wet card or battery into the camera.
- Do not leave the camera for a long period of time in places where temperature is very low (at ski resorts or at high altitude etc.) or very high [above 40 °C (104 °F)], inside a car under strong sunlight, close to a heater, on the beach, etc. Waterproof performance may be degraded.

■ About the [Precautions] demonstration display ([Requirements for Underwater use])

- [Precautions] is displayed when the power is turned on for the first time after purchase, with the side door completely closed.
- Please check beforehand to maintain the waterproof performance.

1 **Press ◄ to select [Yes], and press [MENU/SET].**

- It will automatically skip to the clock setting screen if [No] is selected before it starts.

2 **Press ◄/► to select the picture.**

◄: Return to the previous screen

►: View the next screen

- It can be forcefully ended by pressing [MENU/SET].
- When it is forcefully ended while checking by turning the unit off or pressing [MENU/SET], [Precautions] is displayed every time the power is turned on.

3 **After the final screen (12/12), press [MENU/SET] to finish.**

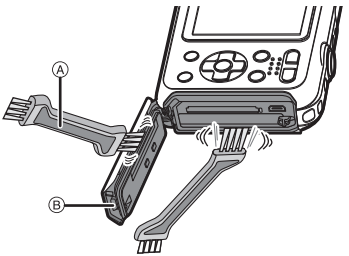
- When [MENU/SET] is pressed after the final screen (12/12), [Precautions] is not displayed from the next time the power is turned on.
- This can also be viewed from [Precautions] in the [Setup] menu.

Check before using underwater

Do not open or close the side door in places with sand and dust, close to water, or with wet hands. Sand or dust adhering may cause water leaks.

1 Check that there are no foreign objects on the inner side of the side door.

Ⓐ Brush (supplied)
Ⓑ Side door



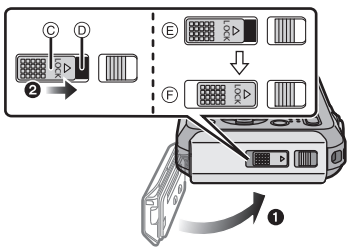
- If there is any foreign object, such as lint, hair, sand, etc., on the surrounding area, water will leak within a few seconds causing malfunction.
- Wipe it off with a dry soft cloth if there is any liquid.
  It may cause water leaks and malfunction if you use the camera with liquid adhered.
- If there is any foreign material, remove with supplied brush.
- Be extremely careful to remove the small sand etc. that may adhere to the sides and corners of the rubber seal.
- Remove large foreign objects, wet sand, etc., using the shorter (harder) side of the brush.

2 Check for cracks and deformation of the rubber seal on the side door.

- The integrity of the rubber seals may decrease after about 1 year, with use and age. To avoid permanently damaging the camera the seals should be replaced once each year. Please contact Panasonic's Service Centre for related costs and other information.

3 Close the side door securely.

Ⓒ [LOCK] switch (grey part)
Ⓓ Red part
Ⓔ Released state
Ⓕ Locked state



- Lock the [LOCK] switch securely until the red part is no longer visible.
- To prevent water seeping into the camera, be careful not to trap foreign objects such as liquids, sand, hair or dust etc.

Using the camera underwater

- Use the camera underwater to 5 m (16 feet) with the water temperature between 0 °C and 40 °C (32 °F and 104 °F).
- Do not use for scuba diving (Aqualung).
- Do not use the camera at a depth of over 5 m (16 feet).
- Do not use it in the hot water over 40 °C (104 °F) (in the bath or hot spring).
- Do not use the camera underwater longer than 60 minutes continuously.
- Do not open or close the side door underwater.
- Do not apply shock to the camera underwater. (Waterproof performance may not be maintained, and there is a chance of water leak.)
- Do not dive into the water holding the camera. Do not use the camera in a location where the water will splash strongly, such as rapid flow or waterfall. (Strong water pressure may be applied, and it may cause malfunction.)
- The camera will sink in the water. Take care not to drop the camera and lose it underwater by securely placing the strap around your wrist or similar measure.

Caring of the camera after using it underwater

Do not open or close the side door until the sand and dust is removed by rinsing the camera with water.
Make sure to clean the camera after using it.

- Thoroughly wipe off any water droplets, sand, and saline matter on your hands, body, hair, etc.
- It is recommended to clean the camera indoors, avoiding places where water spray or sand may fall.

After using it underwater, always clean the camera rather than leaving it in a dirty state.

- Leaving the camera with foreign objects or saline matter on it may cause damage, discolouration, corrosion, unusual odour, or deterioration of the waterproof performance.

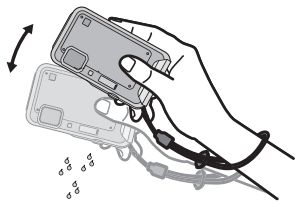
1 **Rinse with water with the side door closed.**

- After use at the seaside or underwater, soak the unit in fresh water pooled in a shallow container for 10 minutes or less.
- If the zoom button or camera [ON/OFF] button do not move smoothly, it may be caused by an adhesion of foreign objects. Using in such a state may cause malfunctions, such as locking up, so wash off any foreign objects by shaking the camera in fresh water.
- Bubbles may come out of the drainage hole when you immerse the camera in water, but this is not a malfunction.

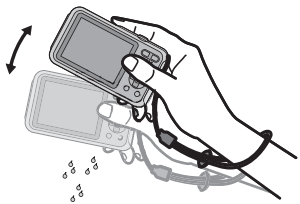
2 Drain water by holding the camera upside-down Ⓐ and the right way up Ⓑ and shaking it lightly a few times.

- After using the camera at the beach or in water, or after washing it, water may remain around the speaker and microphone for a while and may cause a drop in volume or sound distortion.
- Fasten the strap firmly to prevent the camera from dropping.

Ⓐ



Ⓑ



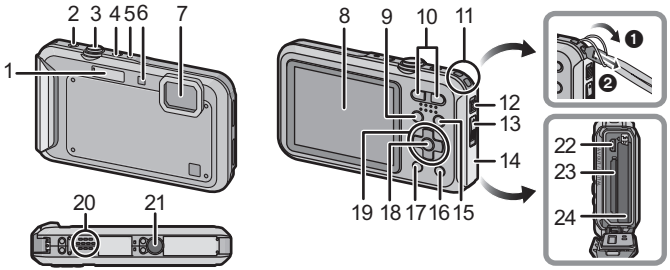
3 Wipe off water drops on the camera with a dry soft cloth and dry the camera in a shaded area which is well ventilated.

- Dry the camera by standing it on a dry cloth. This unit incorporates drain design, draining water in gaps in the camera [ON/OFF] button and zoom button etc.
- Do not dry the camera with hot air from dryer or similar. Waterproof performance will deteriorate due to deformation.
- Do not use chemicals such as benzine, thinner, alcohol or cleanser, soap or detergents.

4 Confirm that there are no water droplets, open the side door, and wipe off any water droplets or sand left inside using a soft dry cloth.

- Water droplets may adhere to the card or battery when the side door is opened without thoroughly drying. Also, water may accumulate in the gap around the card/battery slot or the terminal connector. Be sure to wipe any water off with a soft dry cloth.
- The water droplets may seep into the camera when the side door is closed while it is still wet, causing condensation or failure.

Names and Functions of Main Parts



1 Flash
2 Motion picture button
3 Shutter button
4 Camera [ON/OFF] button
5 Microphone
6 Self-timer indicator/ AF Assist Lamp
7 Lens
8 LCD monitor
9 [MODE] button
10 Zoom button
11 Strap eyelet
- Be sure to attach the strap when using the camera to ensure that you will not drop it.

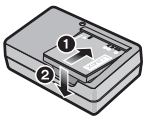
12 Release lever
13 [LOCK] switch
14 Side door
15 [▶] (Playback) button
16 [Q.MENU]/[🗑/↩] (Delete/Cancel) button
17 [DISPLAY] button
18 [MENU/SET] button
19 Cursor buttons
20 Speaker
- Be careful not to cover the speaker with your finger. Doing so may make sound difficult to hear.

21 Tripod receptacle
22 [AV OUT/DIGITAL] socket
23 Card slot
24 Battery slot

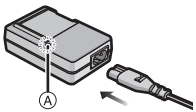
Charging the Battery

Use the dedicated charger and battery.
- **The battery is not charged when the camera is shipped. Charge the battery before use.**
- **Charge the battery with the charger indoors [10 °C to 30 °C (50 °F to 86 °F)].**

1 **Attach the battery paying attention to the direction of the battery.**



2 **Connect the AC Mains Lead.**
- The [CHARGE] indicator Ⓐ lights up and charging begins.



■ About the [CHARGE] indicator

On: Charging.

Off: Charging has completed. **(Charging time: Approx. 120 min)**

■ About batteries that you can use with this unit

The battery that can be used with this unit is DMW-BCK7E.

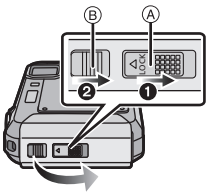
Inserting and Removing the Card (optional)/the Battery

- Check that this unit is turned off.
- **Confirm that there is no foreign object.**
- We recommend using a Panasonic card.

1 **❶: Slide the [LOCK] switch Ⓐ, and release the lock.**

❷: Slide the release lever Ⓑ and open the side door.

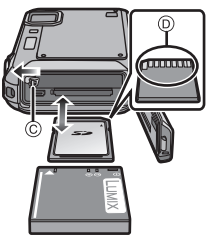
- **Always use genuine Panasonic batteries (DMW-BCK7E).**
- **If you use other batteries, we cannot guarantee the quality of this product.**



2 **Battery: Being careful about the battery orientation, insert all the way until you hear a locking sound and then check that it is locked by lever Ⓒ. Pull the lever Ⓒ in the direction of the arrow to remove the battery.**

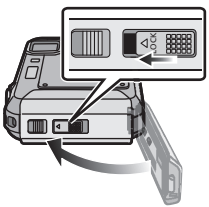
Card: Push it securely all the way until you hear a "click" while being careful about the direction in which you insert it. To remove the card, push the card until it clicks, then pull the card out upright.

Ⓓ: Do not touch the connection terminals of the card.



3 **Close the side door until it clicks, and then lock the [LOCK] switch by sliding it toward [◀].**

- Confirm that the red part on the [LOCK] switch is not showing.



Note

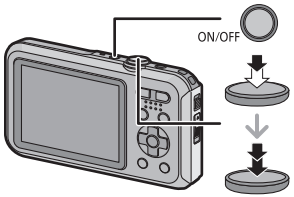
- Keep the Memory Card out of reach of children to prevent swallowing.

Sequence of operations

1 **Press camera [ON/OFF] button.**

- **The clock is not set when the camera is shipped. Set the date and time before using the camera.**

2 **Press the shutter button halfway to focus and then press it fully to take the picture.**



■ Selecting the Recording Mode

Press [MODE] to select the Recording Mode.

: Take pictures with automatic settings.

: Take pictures with your own settings.

: This mode is optimal for taking pictures of sporting events, etc.

: This mode is optimal for taking pictures that show the snow as white as possible at a ski resort or a snow-covered mountain.

: This mode is optimal for taking pictures to 3 m (10 feet) underwater and at the beach.

: This mode is optimal for taking pictures at depths of 3 m (10 feet) to 5 m (16 feet).

: Take pictures to make them look like a diorama. (also known as Tilt Shift Focus)

SCN: Take pictures according to scene.

■ Recording Motion Pictures

Start recording by pressing the motion picture button.

- Stop the recording by pressing the motion picture button again.
- Maximum time to record motion pictures continuously is 29 minutes 59 seconds.
  The maximum available recording time continuously is displayed on the screen.

■ Setting the Menu

Press [MENU/SET] to display the menu screen to change the recording function, camera settings, and other settings.

■ Playing Back Pictures ([Normal Play])

Press [▶].

- Press ◄ or ► to select the picture.

■ Deleting Pictures

Select the picture, and then press [🗑/⮌].

- Confirmation screen is displayed. Picture is deleted by selecting [Yes].

Reading the Operating Instructions (PDF format)

More detailed instructions on the operation of this camera are contained in "Operating Instructions for advanced features (PDF format)" in the supplied CD-ROM. Install it on your PC to read it.

■ For Windows

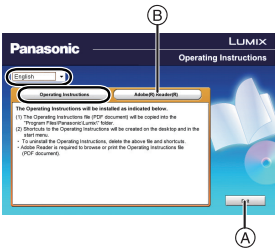
1 **Turn the PC on and insert the CD-ROM containing the Operating Instructions (supplied).**

2 **Click the [Operating Instructions].**

3 **Select the desired language and then click [Operating Instructions] to install.**

Ⓐ To return to the install menu.

4 **Double click the "Operating Instructions" shortcut icon on the desktop.**


Ⓑ
Panasonic
LUMIX
Operating Instructions
English
Operating Instructions
Adobe(R) Reader(R)
The Operating Instructions will be installed as indicated below.
(1) The Operating Instructions file (PDF document) will be copied into the "Program Files\Panasonic\Lumix" folder.
(2) Shortcuts to the Operating Instructions will be created on the desktop and in the start menu.
- To uninstall the Operating Instructions, delete the above file and shortcuts.
- Adobe Reader is required to browse or print the Operating Instructions file (PDF document).
Ⓐ

■ When the Operating Instructions (PDF format) will not open

You will need Adobe Acrobat Reader 5.0 or later or Adobe Reader 7.0 or later to browse or print the Operating Instructions (PDF format).
Insert the CD-ROM containing the Operating Instructions (supplied), click Ⓑ and then follow the messages on the screen to install.
(Compatible OS: Windows XP SP3/Windows Vista SP2/Windows 7)

- You can download and install a version of Adobe Reader that you can use with your OS from the following Web Site.
  http://get.adobe.com/reader/otherversions/

Installing supplied software

- The supplied CD-ROM includes the following software.
  - PHOTOfunSTUDIO 8.0 SE (Windows XP/Vista/7)
  - LoiLoScope 30 day full trial version (Windows XP/Vista/7)
    (This will only install a shortcut to the trial version download site.)
- Before inserting the CD-ROM, close all running applications.

1 Check the environment of your PC.

- **Operating environment of "PHOTOfunSTUDIO 8.0 SE"**
  - OS:
    Windows® XP (32bit) SP3,
    Windows Vista® (32bit) SP2,
    Windows® 7 (32bit/64bit) and SP1
  - CPU:
    Pentium® III 500 MHz or higher (Windows® XP),
    Pentium® III 800 MHz or higher (Windows Vista®),
    Pentium® III 1 GHz or higher (Windows® 7)
  - Display:
    1024×768 pixels or more (1920×1080 pixels or more recommended)
  - RAM:
    512 MB or more (Windows® XP/Windows Vista®),
    1 GB or more (Windows® 7 32bit),
    2 GB or more (Windows® 7 64bit)
  - Free hard disk space:
    450 MB or more for installing software
- Refer to the operating instructions of "PHOTOfunSTUDIO" (PDF) for further operating environment.

2 Insert the CD-ROM with the supplied software.

- When you insert the supplied CD-ROM, the install menu will start.

3 Click on the [Applications] on the install menu.

4 Click on the [Recommended Installation].

- Proceed with installation according to messages appearing on the screen.

Note

- The software compatible with your PC will be installed.
- "PHOTOfunSTUDIO" is not compatible with Mac.

Specifications

Digital Camera:
Information for your safety

Power Source:	DC 5.1 V
Power Consumption:	1.0 W (When recording) 0.6 W (When playing back)

Camera effective pixels	16,100,000 pixels	
Image sensor	1/2.33″ CCD, total pixel number 16,600,000 pixels, Primary colour filter	
Lens	Optical 4× zoom, f=4.5 mm to 18 mm (35 mm film camera equivalent: 25 mm to 100 mm)/F3.9 (Wide) to F5.7 (Tele)	
Image stabiliser	Optical method	
Focus range	Normal	50 cm (1.6 feet) (Wide)/1 m (3.3 feet) (Tele) to ∞
	Macro/ Intelligent auto/ Motion picture	5 cm (0.16 feet) (Wide)/1 m (3.3 feet) (Tele) to ∞
	Scene Mode	There may be differences in the above settings.
Shutter system	Electronic shutter+Mechanical shutter	
Minimum Illumination	Approx. 14 lx (when i-low light is used, the shutter speed is 1/25th of a second)	
Shutter speed	8 seconds to 1/1300th of a second	
Exposure (AE)	Auto (Programme AE)	
Metering mode	Multiple	
LCD monitor	2.7″ TFT LCD (4:3) (Approx. 230,000 dots) (field of view ratio about 100%)	

Microphone	Monaural
Speaker	Monaural
Recording media	Built-in Memory (Approx. 70 MB)/SD Memory Card/ SDHC Memory Card/SDXC Memory Card
Recording file format	
Still Picture	JPEG (based on “Design rule for Camera File system”, based on “Exif 2.3” standard)/DPOF corresponding
Motion pictures	MP4
Audio compression format	AAC
Interface	
Digital	“USB 2.0” (High Speed) ∗ Data from the PC can not be written to the camera using the USB connection cable.
Analogue video	NTSC/PAL Composite (Switched by menu)
Audio	Audio line output (monaural)
Terminal	
[AV OUT/DIGITAL]	Dedicated jack (8 pin)
Dimensions (excluding the projecting parts)	Approx. 101 mm (W)×58.3 mm (H)×19.2 mm (D) [3.98″(W)×2.3″(H)×0.76″(D)]
Mass	Approx. 142 g/0.313 lb (with card and battery) Approx. 123 g/0.271 lb (excluding card and battery)

Operating temperature	−10 °C* to 40 °C (14 °F* to 104 °F) * The performance of the battery (number of recordable pictures/operating time) may decrease temporarily when using in a temperature between −10 °C and 0 °C (14 °F and 32 °F) (cold places such as ski resorts or places at high altitude).
Operating humidity	10%RH to 80%RH
Waterproof performance	Equivalent to IEC 60529 “IPX8”. [Usable for 60 minutes in 5 m (16 feet) water depth]
Crash resistance perfomance	The test method of the camera is in compliance with “MIL-STD 810F Method 516.5-Shock”*. * “MIL-STD 810F Method 516.5-Shock” is the test method standard of the U.S. Defense Department, which specifies performing drop tests from a height of 122 cm (4 feet), at 26 orientations (8 corners, 12 ridges, 6 faces) using 5 sets of devices, and passing the 26 orientation drops within 5 devices. (If failure occurs during the test, a new set is used to pass the drop orientation test within a total of 5 devices) • Panasonic’s test method is based on the above “MIL-STD 810F Method 516.5-Shock”. However, the drop height was changed from 122 cm (4 feet) to 150 cm (5 feet) dropping onto 3 cm (0.1 feet) thick plyboard. This drop test was passed. (Disregarding appearance change such as loss of paint or distortion of the part where drop impact is applied.) **There is no guarantee of not breaking or malfunctioning under all conditions.**
Dustproof performance	Equivalent to IEC 60529 “IP6X”.

Battery Charger (Panasonic DE-A92A):
Information for your safety

Input:	AC ～ 110 V to 240 V, 50/60 Hz, 0.2 A
Output:	DC ⎓ 4.2 V, 0.43 A
Operating temperature:	0 °C ＊ to 40 °C (32 °F ＊ to 104 °F) ＊ The battery cannot be recharged in a temperature less than 0 °C (32 °F). (The [CHARGE] indicator blinks when the battery cannot be recharged.)

Battery Pack (lithium-ion) (Panasonic DMW-BCK7E):
Information for your safety

Voltage/capacity:	3.6 V/680 mAh

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- QuickTime and the QuickTime logo are trademarks or registered trademarks of Apple Inc., used under license therefrom.
- Mac and Mac OS are trademarks of Apple Inc., registered in the U.S. and other countries.
- Windows and Windows Vista are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- This product uses “DynaFont” from DynaComware Corporation. DynaFont is a registered trademark of DynaComware Taiwan Inc.
- Other names of systems and products mentioned in these instructions are usually the registered trademarks or trademarks of the manufacturers who developed the system or product concerned.

This product is licensed under the AVC patent portfolio license for the personal and non-commercial use of a consumer to (i) encode video in compliance with the AVC Standard (“AVC Video”) and/or (ii) decode AVC Video that was encoded by a consumer engaged in a personal and non-commercial activity and/or was obtained from a video provider licensed to provide AVC Video. No license is granted or shall be implied for any other use. Additional information may be obtained from MPEG LA, LLC. See http://www.mpegla.com .

EU

Pursuant to at the directive 2004/108/EC, article 9(2)
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